Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

<table>
<tr><td rowspan="2">Office Action Summary</td><td>Application No.</td><td>Applicant(s)</td></tr>
<tr><td>09/245592</td><td>ADDY et al</td></tr>
<tr><td></td><td>Examiner</td><td>Art Unit</td><td></td></tr>
<tr><td></td><td>Steven R. Wasylchak</td><td>2764</td><td></td></tr>
</table>

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Status

1) ☐ Responsive to communication(s) filed on _____ .

2a) ☐ This action is **FINAL.**   2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) _1-17_ is/are pending in the application.

  4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) _1-17_ is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.

12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

  a) ☐ All b) ☐ Some * c) ☐ None of the CERTIFIED copies of the priority documents have been:

    1. ☐ received.

    2. ☐ received in Application No. (Series Code / Serial Number) _____ .

    3. ☐ received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

  * See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. & 119(e).

Attachment(s)

14) ☒ Notice of References Cited (PTO-892)

15) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)

16) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .

17) ☐ Interview Summary (PTO-413) Paper No(s). _____ .

18) ☐ Notice of Informal Patent Application (PTO-152)

19) ☐ Other:

DETAILED ACTION

1.   Examined claims 1- 17

2.   **Hereafter:** CL = claim(s)

            L = line(s)

            p = page(s)

Claim Rejections - 35 USC 103

3.   The following is a quotation of 35 USC 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

4.   CL(s) 1-3, 6-9, 12-15 are rejected under 35 USC 103(a) as being unpatentable

over Novak (US 5497314) and in view of Lutz (US 6047262) and further in view of

Addy (US 5965861).

CL 1,

A method of operating a retail system which includes

 (i) a plurality of self-service checkout terminals, / col 12: CL 18; fig 5; col 2, L 11-13.

 (ii) a first remote supervisor terminal, and / Novak does not explicitly teach a first or any

remote supervisor terminal.

       However, Novak implicitly teaches additional cameras (col 8, L 13-18). It would

have been obvious to one of ordinary skill in the art at the time of applicant's invention to

use additional cameras for supervisory functions for the advantage of increasing the

target area of the number of checkout counters covered and as a "backup" unit as well

as for training purposes.

Furthermore, Lutz discloses a second remote terminal (a display terminal used

to observe all the views - individually or jointly - of a number of video cameras) as part

of a closed -circuit surveillance video system (col 1, L 60-63). It would have been

obvious to one of ordinary skill in the art at the time of applicant's invention to implement

such a secondary terminal feature to gain the advantages of having a "backup" terminal

should the first terminal breakdown or be down due to maintenance and for security

surveillance.

While both Novak and Lutz fail to explicitly teach the supervisory aspect of the

remote supervisory terminal, Addy teaches the supervisory aspect of a checkout

terminal video system: col 4, L 17-21. It would have been obvious to one of ordinary

skill in the art at the time of applicant's invention to implement such a checkout terminal

feature to gain the advantage of centralized management control and for security

surveillance.

(iii) a second remote supervisor terminal, / refer to reasoning above

-operating said first remote supervisor terminal such that said first remote supervisor

terminal monitors operation of each of said plurality of self-service checkout terminals

during a first period of time; / Novak does not explicitly teach a first remote supervisor

terminal performing this specific function during the *first* period. Official notice is taken

that it would have been obvious to one of ordinary skill in the art at the time of

applicant's invention to implement such a feature to gain the advantage of efficiency by

systematically monitoring checkout terminals over specific time frames by the fewest

number of supervisor terminals without duplication and with the rest being in idle mode.

-maintaining said second remote supervisor terminal in an idle

 mode of operation such that said second remote supervisor terminal does not monitor

operation of any of said plurality of self-service checkout terminals during said first

period of time; / refer to reasoning directly above

-operating said first remote supervisor terminal such that said first remote supervisor

terminal monitors operation of a first group of said plurality of self-service checkout

terminals during a second period of time; and / refer to reasoning directly above

-operating said second remote supervisor terminal such that said second remote

supervisor terminal monitors operation of a second group of said plurality of self-service

checkout terminals during said second period of time, / refer to reasoning directly

above

-wherein said first group of said plurality of self-service checkout terminals is different

from said second group of said plurality of self-service checkout terminals. / Novak: fig 5

and fig 6

 CL 2,

The method of claim 1, wherein said step of operating said first remote supervisor

terminal such that said first remote supervisor terminal monitors operation of each of

said plurality of self-service checkout terminals includes the step of operating said first

remote supervisor terminal such that said first remote supervisor terminal monitors

operation of each of said plurality of self-service checkout terminals so as to assist a

plurality of customers respectively operating each of said plurality of self-service

checkout terminals. / reasoning as applied to CL 1 and Novak: fig 4: digital camera and

fig 5 and fig 6 checkout terminals. However, Novak does not explicitly teach various

permutations of supervisory terminals with checkout terminals. Official notice is taken

that it would have been obvious to one of ordinary skill in the art at the time of

applicant's invention to implement such a feature to gain the advantage of queuing

efficiency by systematically monitoring checkout terminals by the fewest number of

supervisor terminals without duplication and with the rest in idle mode.

CL 3,

The method of claim 1, wherein:

- said step of operating said first remote supervisor terminal such that said first remote

supervisor terminal monitors operation of said first group of said plurality of self-service

checkout terminals includes the step of operating said first remote supervisor terminal

such that said first remote supervisor terminal monitors operation of said first group of

said plurality of self-service checkout terminals so as to assist a first group of customers

respectively operating each of said first group of self-service checkout terminals, and /

reasoning as applied to CL 1. However, Novak does not explicitly teach a 1:1

assignment of supervisor terminals to groups.

Official notice is taken that this feature is old and well known in the point of sale art.

It would have been obvious to one of ordinary skill in the art at the time of applicant's

invention to implement such a feature to gain the advantage of queuing efficiency by a

systematic tracking of groups by assigning a specific monitor to each group.

-said step of operating said second remote supervisor terminal such

that said second remote supervisor terminal monitors operation of said second group of

said plurality of self-service checkout terminals includes the step of operating said

second remote supervisor terminal such that said second remote supervisor terminal

monitors operation of said second group of said plurality of self-service checkout

terminals so as to assist a second group of customers respectively operating each of

said second group of self-service checkout terminals. / refer to reasoning directly above

CL 6,

The method of claim 1, wherein said retail system further includes a third remote

supervisor terminal, further comprising the steps of:

- operating said first remote supervisor terminal such that said first

remote supervisor terminal monitors operation of a third group of said

plurality of self-service checkout terminals during a third period of time; / reasoning as

applied to CL 1. However, Novak does not explicitly teach a sequential assignment of

different terminals to different groups over the same time period

Official notice is taken that these features are old and well known in the point of sale

art. It would have been obvious to one of ordinary skill in the art at the time of

applicant's invention to implement such a feature of sequential assignment to gain the

advantage of queuing efficiency by a systematic tracking of groups by the assigning of a

specific monitor to sequences of different checkout terminals and different groups over

the same time frames and by not keeping monitors unnecessarily idle.

-operating said second remote supervisor terminal such that said

second remote supervisor terminal monitors operation of a fourth group of

said plurality of self-service checkout terminals during said third period of

time; and / refer to reasoning directly above

-operating a third remote supervisor terminal such that said third remote supervisor

terminal monitors operation of a fifth group of said plurality of self-service checkout

terminals during said third period of time, / refer to reasoning directly above

-wherein each of said first group of self-service checkout terminals,

 said second up of self-service checkout terminals, said third group of self-service

checkout terminals, said fourth group of self-service checkout terminals, and said fifth

group of self-service checkout terminals is different from one another. / refer to

reasoning directly above

CL 7.

 A method of operating a retail system, comprising the steps of:

-operating a first remote supervisor terminal so as to monitor operation of a first group of

self-service checkout terminals during a first period of time; / However, Novak does not

explicitly teach the permutation of a sequential assignment of different terminals to

different groups over *different* time periods.

Official notice is taken that this feature is old and well known in the point of sale art.

It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to implement such a feature to gain the advantage of efficiency by minimizing customer checkout time by utilizing basic operations research with linear programming and queuing theory.

-operating a second remote supervisor terminal so as to monitor operation of a second group of self-service checkout terminals during said first period of time; / refer to reasoning directly above

 -operating said first remote supervisor terminal so as to monitor operation of said second group of self-service checkout terminals during a second period of time; and / refer to reasoning directly above

- operating said second remote supervisor terminal so as to monitor operation of said first group of self-service checkout terminals during said second period of time, / refer to reasoning directly above

-wherein said first group of self-service checkout terminals is different from said second group of self-service checkout terminals / refer to reasoning directly above

CL 8,

The method of claim 7, wherein:

-said step of operating said first supervisor terminal so as to monitor operation of said first group of self-service checkout terminals includes the step of operating, said first supervisor terminal so as to assist a first group of customers respectively operating said

first group of self-service checkout terminals during said first period of time, and / refer

to reasoning as applied to CL 7 and refer to reasoning above

CL 9,

 The method of claim 8, wherein: said step of operating said first supervisor terminal

so as to monitor operation of said second group of self-service checkout terminals

includes the step of operating said first supervisor terminal so as to assist a third

group of customers respectively operating said second group of self

service checkout terminals during said second period of time, and / reasoning as

applied to CL 7 and as applied to CL 8.   However, Novak does not explicitly teach the

assistance of multiple *pairs* of groups at the same time by different monitors.

Official notice is taken that this feature is old and well known in the point of sale art.

It would have been obvious to one of ordinary skill in the art at the time of applicant's

invention to implement such a feature to gain the advantage of a systematic as opposed

to random tracking of groups by assigning a specific monitor to multiple pairs groups at

various times.

CL 12.

 The method of claim 7, further comprising the step of operating a third remote

supervisor terminal so as to monitor operation of both said first group of self-service

checkout terminals and said second group of self-service checkout terminals during a

third period of time. / reasoning as applied to CL 7.   However, Novak does not explicitly

teach the simultaneous coverage of a pair of groups by a different monitor over a

different time frame.

Official notice is taken that this feature is old and well known in the point of sale art.

It would have been obvious to one of ordinary skill in the art at the time of applicant's

invention to implement such a feature to gain the advantage of a systematic and

simultaneous tracking of multiple groups by assigning a specific monitor to a multiple

group.

CL 13,

A self-service retail system comprising,

-a plurality of self-service checkout terminals for allowing a plurality of customers to

checkout items for purchase; / refer to reasoning under CL 1 (I). However, Novak does

not explicitly teach a 1:1 mapping of terminals to groups or the permutation of groups,

terminals and time with respect to the checkout process.

Official notice is taken that this feature is old and well known in the point of sale art.

It would have been obvious to one of ordinary skill in the art at the time of applicant's

invention to implement such a feature to gain the advantage of a systematic and thus

efficient tracking of permutations of groups, terminals, and time.

-a first remote supervisor terminal electrically coupled to each of said plurality of self-

service checkout terminals; and /refer to reasoning directly above. However, Novak

does not teach remote supervisor terminal multiplexing with checkout terminals.

Official notice is taken that the procedure of multiplexing is well known in the

communications art. It would have been obvious to one of ordinary skill in the art at the

time of applicant's invention to implement a multiplexing feature for the advantage of

efficiency by having one supervisor terminal control several checkout terminals.

-a second remote supervisor terminal electrically coupled to each of said plurality of

self-service checkout terminals, / refer to reasoning directly above

-wherein

(i) said first remote supervisor terminal is configured to

monitor operation of each of said plurality of self-service checkout

terminals during a first period of time, / refer to reasoning directly above

(ii) said second remote supervisor terminal is maintained in an idle mode of operation

during said first period of time, / refer to reasoning directly above and reasoning under

CL 1, for L 9-12

(iii) said first remote supervisor terminal is further configured to monitor operation of a

first group of said plurality of self-service checkout terminals during a second period of

time, / refer to reasoning directly above under (i)

(iv) said second remote supervisor terminal is further configured to monitor operation a

second group of said plurality of self-service checkout terminals during said second

period of time, and / refer to reasoning directly above

(v) said first group of said plurality of self-service checkout terminals is different from

said second group of said plurality of self-service checkout terminals./ refer to reasoning

directly above

CL 14,

The self-service retail system of claim 13, wherein said first remote supervisor terminal

is further configured to assist each of said plurality of customers during said first period

of time. / reasoning as applied to CL 13. However, Novak does not explicitly teach this

multiplexing permutation of customers, terminals and time.

Official notice is taken that multiplexing is an old and well known in the communication

art.

It would have been obvious to one of ordinary skill in the art at the time of applicant's

invention to implement multiplexing to gain the advantage of a systematic and complete

(as opposed to random) tracking of permutations of customers, terminals and time.

CL 15,

The self-service retail system of claim 13, wherein:

-said first remote supervisor terminal is further configured to assist a

first group of said plurality of customers during said second period of

time, and / reasoning as applied to CL 13. However, Novak does not explicitly teach

this permutation of customers, terminals and time.

Official notice is taken that this feature is old and well known in the point of sale art.

It would have been obvious to one of ordinary skill in the art at the time of applicant's

invention to implement such a feature to gain the advantage of a systematic as

opposed to random tracking of permutations of terminals, groups and time.

5.   CL(s) 4, 5, 10, 11, 16, and 17 are rejected under 35 USC 103(a) as being

unpatentable over Novak and in view of Lutz.

CL 4,

The method of claim 1, wherein said step of operating said first

remote supervisor terminal such that said first remote supervisor terminal

monitors operation of each of said plurality of self-service checkout

terminals includes the step of operating said first remote supervisor

terminal so as to provide security to each of said plurality of self-service

checkout terminals during said first period of time. / reasoning as applied to CL 1

and with respect to security, refer to Lutz: col 1, L 60 to col 2, L 4

CL 5,

The method of claim 1, wherein:

-said step of operating said first remote supervisor terminal such

that said first remote supervisor terminal monitors operation of said first

group of said plurality of self-service checkout terminals includes the step

of operating said first remote supervisor terminal so as to provide security

to said first group of said plurality of self-service checkout terminals during

said second period of time, and / reasoning as applied to CL 1 and refer to reasoning

directly above

- said step of operating said second remote supervisor terminal such

that said second remote supervisor terminal monitors operation of said

second group of said plurality of self-service checkout terminals includes

the step of operating said second remote supervisor terminal so as to

provide security to said second group of said plurality of self-service

checkout terminals during said second period of time. / reasoning as applied to CL 1

and refer to reasoning directly above

CL 10,

The method of claim 7, wherein:

- said step of operating said first supervisor terminal so as to monitor operation of said

first group of self-service checkout terminals includes the step of operating said first

supervisor terminal so as to provide security to said first group of self-service checkout

terminals during said first period of time, and / reasoning as applied to CL 7 and refer to

reasoning directly above

-said step of operating said second supervisor terminal so as to

monitor operation of said second group of self-service checkout terminals / reasoning

as applied to CL 7 and refer to reasoning directly above

-said step of operating said second supervisor terminal so as to

monitor operation of said first group of self-service checkout terminals includes the step

of operating said second supervisor terminal so as to assist a fourth group of customers

respectively operating said first group of self-service checkout terminals during said

second period of time. / reasoning as applied to CL 7 and refer to reasoning directly

above

-includes the step of operating said second supervisor terminal so as to

provide security to said second group of self-service checkout terminals during said first

period of time. / reasoning as applied to CL 7 and refer to reasoning directly above

CL 11,

The method of claim 10, wherein: said step of operating said first supervisor terminal so

as to monitor

-service checkout terminals includes operation of said second group of self

the step of operating said first supervisor terminal so as to provide

security to said second group of self-service checkout terminals during

said second period of time, and / reasoning as applied to CL 7 and as applied to CL10

and refer to reasoning directly above

-said step of operating said second supervisor terminal so as to

monitor operation of said first group of self-service checkout terminals includes the step

of operating said second supervisor terminal so as to provide security to said first group

of self-service checkout terminals during said second period of time. / refer to reasoning

directly above

CL 16,

The self-service retail system of claim 13, wherein said first

remote supervisor terminal is further configured to provide security to

each of said plurality of self-service checkout terminals during said first

period of time. / reasoning as applied to CL 13 and refer to reasoning under CL 4 with

respect to security

CL 17,

The self-service retail system of claim 13, wherein:

-said first remote supervisor terminal is further configured to provide

security to said first group of said plurality of self-service checkout

terminals during said second period of time, and / refer to reasoning directly above

-said second remote supervisor terminal is further configured to

provide security to said second group of said plurality of self-service

checkout terminals during said second period of time. / reasoning as applied to CL 13

and refer to reasoning directly above.

6.   This application currently names **joint inventors**. In considering patentability of

the claims under 35 U.S.C. 103(a), the examiner presumes, absent any explicit written

evidence to the contrary presented by the applicant(s), that the subject matter of the

various claims was **commonly** owned at the time any inventions covered therein were

made. Applicant is advised of the obligation under 37 CFR 1.56 to point out the

inventor and invention dates of each claim that was not commonly owned at the time a

later invention was made in order for the examiner to consider the applicability of 35

U.S.C. 103(c) and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

Conclusion

The prior art made of record and not relied upon but still considered **pertinent** to

applicant's disclosure:

"New Products" teaches self-checkout using artificial intelligence

Dorman teaches a self-service checkout station

Hennessy teaches self-scanning with illustrations

"Techtracks" gives pictorial view of a self-checkout station

Lutz teaches using weights for security at the checkout station

Addy et al teach motion detection security at the checkout station

Walter et al teach security by scanning items

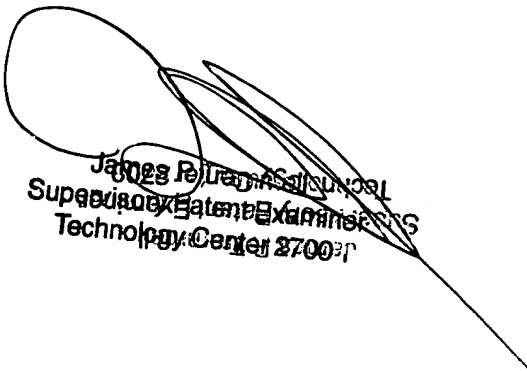Morrison et al teach security by a video system

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Steven R. Wasylchak whose telephone number is

(703) 308-2848. The examiner can normally be reached Mon -Thur from 8:00am

to 6:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, James Trammell, can be reached at (703) 305-9768. The fax phone

number for the organization where this application is assigned is

(703) 305-0040.

Any inquiry of a general nature or relating to the status of this application or

proceeding should be directed to the receptionist whose telephone number is

(703) 305-5140.

Steven R. Wasylchak

Date: 9/11/00